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TECHNICAL REPORT ON MEDICAL-PSYCHOLOGICAL ASSESSMENT OF STUDENTS AT THE NAVY
INTELLIGENCE SCHOOL

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INTRODUCTION

In 1951, liaison conferences between Capt. F. B. Frankel, USN, Director. U.S. Navy Intelligence School, and Capt. C. G. McCormack, MC, USN, Director of Professional Division, Bureau of Medicine and Surgery, were held to explore the possibility of the Neuropsychiatry Branch, Bureau of Medicine and Surgery. Department of Navy, giving professional assistance to the Naval Intelligence School with respect to the medical-psychological screening of candidates in that School. The Naval Intelligence School had received some candidates who had shown themselves to be unfit for military service because of psychiatric disabilities. These disabilities were discovered while the candidates were attending the Navy Intelligence School. The liaison conferences led to operational conferences between Capt. G. N. Raines, MC, USN, Head, Neuropsychiatry Branch, Professional Division, Bureau of Medicine and Surgery, and members of the staff of the Intelligence School. The current medical-psychological assessment program was instigated as a result of these conferences. The first medical-psychological screening program was accomplished in December, 1951, and all subsequent classes have been screened in a like manner.

During the course of the assessment program, two general problems have evolved. Both of them have to do with the criteria against which evaluation,

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from a medical-psychological point of view, should be accomplished. Two criteria suggested themselves. The first criterion was concerned with the candidates success in the Naval Intelligence School proper. That is to say, the results of the neuropsychiatry assessment program could be evaluated against criteria of "standing in class" and in this way more specific psychiatric indices of performance on the billet assignment in the School proper could be indicated. This criterion would eventually provide the assessment team with more definite information against which to evaluate their data, as well as point to factors in the candidate's personality makeup that merited more careful consideration in selection and evaluation. The second criterion, and perhaps the more important one from the operational standpoint of the Navy, is concerned with how the candidates, who had completed the course, succeeded in the performance of the duties of the billets assigned them in the Office of Naval Intelligence. These two criteria are not necessarily highly correlated. As has long been known in academic circles, the individual who stands highest in his class at the end of academic training is not necessarily the one who shows the most outstanding success in the performance of the job on which he enters following graduation. This applies not only to the more general areas of work such as selling, skilled occupations, and the like, but is to be found also in highly skilled and trained professions such as medicine and law.

In the medical-psychological screening program, as it was set up for the Naval Intelligence School, provision was made to obtain two rather distinctive kinds of information. First of all, the screening team looked for general psychiatric illnesses, on the part of the candidate, that were debilitating

for the performance of general Naval duty at Officer rank. That is to say there are certain kinds of psychiatric illnesses which prevent Officers from adequately assuming the responsibilities and duties of a Naval Officer. The identification of candidates with such general disabilities has been called to the attention of the School officials, and subsequent disposition of these men has been made through regular channels. More recently the Neuropsychiatry Branch, Bureau of Medicine and Surgery, has become increasingly aware of the fact that what may be a debilitating illness for one billet assignment may not be a debilitating illness for a second kind of billet assignment, within the Navy proper. An hypothetical example may clarify this point. Manic-aggressive tendencies in an Officer may actually be to the benefit of the Navy if the person possessing those tendencies is assigned to a face-to-face combat billet, whereas such an individual assigned to a billet on a patrolling submarine, may eventually go berserk to the detriment of Navy operations.

In order to identify individuals who are best fitted for one type of assignment and least fitted for a second kind of assignment, one must in actuality know what the personality and emotional stress demands of the billet is. While one can speculate as to the possible demands of such assignments, the only satisfactory method for establishing precise criteria of the personality demands is given by an analysis of the billet in terms of the medical-psychological demands which it places upon the individual. It is from this kind of "hind-sight" that Navy Neuropsychiatry can gather experimental data and meaningfully evaluate it in terms of the Officers personality structure, as that structure is evaluated in the assessment personality program.

The results of the medical-psychological assessment program, carried out on Naval Intelligence School students, has been evaluated against the criterion of performance in the School proper, and some significant indices have been obtained. These are discussed in the following section.

RESULTS

- (a) Comparison of Candidates in Naval Intelligence School with Officer Candidates in the Basic Schools, Marine Corps. The chief comparison that has been made between these groups has to do with differences in the personality structure of the groups. The personality measurements were based on results of Rorschach testing -- a projective "ink blot" test. The results of analyses in which comparison of the two groups has been made demonstrate rather clearly that the personality structure of the candidates in the Navy Intelligence School is different from the personality structure of the candidates in the Officer Candidate School of the Marine Corps. The chief difference between the two groups are as follows: The Marine Corps Junior Officer tends to be more compulsive, show a greater amount of concern over successfully relating to their peers and men with whom they are working; they tend to be somewhat more gregarious and tend to be a little less imaginative. Conversely, the ONI candidates tend to have a richer, inner-fantasy life, (i.e., tend to live more within themselves) tend to be slightly more suspicious and imaginative, tend to not respond emotionally or with such strong effect as do the Marines. Both groups on which data were obtained, were of superior intelligence.
- (b) <u>Differences between ONI Officers</u>. When one took the criterion of standing in the class for the Naval Intelligence School group, discriminations RESTRICTED SECURITY INFORMATION

were obtained between the Officers ranked in the Upper and lower 10 o/o in their class. Discriminations were obtained on the Millers Analogies Test (a test for superior verbal ability), the Sports Inventory (a test for the preference for individual versus team sports), and the Allport-Vernon Scale of Values. In the latter test, the upper 10 o/o group tended to score higher on the political sub-score and lower on the religious sub-score. That is, they had stronger feelings and a greater sensitivity to political matters than did the low group, and they were less concerned with religious dogma and doctrine than were the low group.

Because of the general importance of obtaining a valid criterion against which to evaluate the assessments made by the medical-psychological team, an analysis has been made of the evaluations made by the Instructors in the Naval Intelligence School of the assessed candidates who have been through that School. This evaluation was made as follows. Individual ranking sheets were prepared for each Officer student in two classes and, at the completion of the course, each Instructor on the Naval Intelligence School teaching staff was asked to rank the men on the basis of probable overall success in Naval Intelligence work. After they had ranked each man, they were asked to go back and pick out the men that they had assigned to the top 10 o/o of the Officer group, and the men they had assigned to the bottom 10 o/o of the group. For these men they were requested to write, in a space provided on the rating sheet, a paragraph describing the qualities and/or characteristics of the Officer which caused the Instructor to assign the candidate the rank standing that he did. The Instructors were told to use their own words in describing the qualities

and characteristics of the men they ranked. This procedure was started with the 8th ONI class and data were gathered on one additional class. The data provided approximately 160 statements on men that had ranked in the top 10 o/o group, and 160 statements on men that had ranked in the bottom 10 o/o group. These descriptive paragraphs were then analyzed according to content analyses methods. The analysis was made in an attempt to identify descriptive phrases which best characterized the traits and characteristics of the men which caused the Instructors to rank them as they did.

The overall results of this analysis are presented on page 7 in Table 1. It will be seen, first of all, that more statements were made about the intellectual performances and abilities of the individual than were made about personality characteristics: motivation for an ONI billet assignment: interest in work; and desirable characterestics for successful interpersonal relationships. Moreover, it will be noted in Table 1 that most of the statements utilized for the top group were positive statements, whereas most of the statements utilized for the bottom groups were negative statements in that the wording was in the general form of "the candidate did not have" this or that quality. This finding suggests that, for the Instructors in the Naval Intelligence School, the most important factors in evaluating the Officer students were intellectual factors related to successful performance of duties in the billet of "student." Classroom performance may or may not be highly correlated with performance on billet assignments in Operations Naval Intelligence. It is likely, however, that personality and character factors are deserving of more weighting than the Instructors gave them.

TABLE 1

Kinds of Statements (positive and negative) made by Raters (Instructors) about Candidates for Naval Intelligence Billets

| | Background Experience | | E . | ectual cations | ing and | Stand- classroom rmance | Other Abilities (verbal, origi- nality, organ- ization, etc.) | |
|------------------|--------------------------|-----|-----|-------------------|---------|-------------------------------|--|----|
| | + | T - | + | _ | + | _ | + | - |
| Top 10 Men | 31 | 2 | 149 | 6 | 31 | 0 | 136 | 2 |
| Bottom 10 Men | 3 | 8 | 20 | 96 | 0 | 36 | 9 | 57 |
| Totals | 34 | 10 | 169 | 102 | 31 | 36 | 145 | 59 |

TABLE 1 (con't.)

| | Work habits and motiva- tion for do- ing good work | | Personality Character- istics | | Interest and mot | | Interpersonal Relationships (leadership, etc.) | |
|------------------|---|----------|-------------------------------------|------|------------------|----|--|----------|
| | + | <u> </u> | + | _ | + | - | + | - |
| Top 10 Men | 100 | o | 249 | n | 27 | 0 | 110 | 10 |
| Bottom 10 Men | 23 | 69 | 50 | 1117 | 13 | 38 | 8 | 36 |
| <u>Totals</u> | 123 | 69 | 299 | 128 | 40 | 38 | 118 | 46 |

In order to obtain an index of the variability in the opinions of the 10 Instructors who made the student mankings, a second analysis was made, for each Instructor, in which all the factors which were related to intellectual and academic performance were added together and all factors relating to nonintellectual performance (e.g., personality characteristics, emotionality, effective interpersonal relations, etc.) were added together. The results of this analysis are presented on page 9, Table 2.

A statistical test (Chi Square) was run on these data to see if the opinions of the different raters were common to the group. A Chi Square value of 65.73 (d.f. 9) was obtained which is significant at beyond the .01 per cent level of confidence. The hypothesis tested, by the Chi Square test, was that the Instructors who rated the candidates for Naval Intelligence Service were drawn from a common population of raters (i.e., that all raters tended to give the same weight to the various intellectual and personality factors in rating the candidates). This hypothesis was rejected on the basis of the test. The Instructors were not in common agreement as to what constituted a desirable ONI Officer. For some, the most important factors were related to intellectual performance, for others the most important factors were related to personality performance.

This finding established the fact that the criteria which has been available for the evaluation of the results of the medical-psychological assessment program in the Naval Intelligence School is a very precarious one inasmuch as the Instructors themselves do not agree as to what characteristics an Officer needs to possess in order to be successful in billets in the Office of Naval RESTRICTED

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TABLE 2

Distribution of Category Statements, by Instructors

| | Area 1 | | Area 2 | | | | | | | | |
|-----------------------|------------------------------------|------|--|-----|---|---|----|---|----------|--|--|
| Officer Instructor | Back- ground experi- ence | lect | Intel- lectual quali- fications | | lemic ding class- i per- ance | Other abilities (verbal, originality, organization, etd.) | | Work habits and motiva tion for doing good work | | Sub- total for intel- lectual factors | |
| | 3 | + 12 | | + 3 | | 11 | 10 | + | <u>-</u> | 6]. | |
| 1 | 3 | 12 | 3 | 3 | 7 | 11 | 10 | 4 | 1.1 | OT | |
| 2 | 1 | 13 | 2 | 1 | 4 | 7 | | 8 | 7 | 42 | |
| 3 * | | l 11 | 17 | 2 | | 9 | | 6 | 6 | 51 | |
| | 1 | 1 | 7 | 2 | 1 | 2 | | 9 | 11 | 33 | |
| 4 | | 13 | 3 | 14 | 14 | 19 | 10 | 9 | 5 | 87 | |
| · 5 | 1 | 29 | 17 | | | 16 | 4 | 10 | 5 | 81. | |
| 6 * | 3 | 19 | 7 | | 1 | 12 | 4 | 15 | 2 | 60 | |
| | 3 1 1 | 11 | 7 | 1 | 1 | 19 | 6 | 7 | 3 | 55 | |
| 7 * | 11 2 | 8 | 10 | | | 12 | 6 | 9 | 3 | 48 | |
| | 2 | n | 7 | | | 8 | 3 | 4 | 2 | 35 | |
| 8 | 5 3 | 9 | 8 | 4 | 5 | 10 | 2 | 7 | 6 | 51 | |
| 9 | 2 | 14 | 5 | 2 | 1 | 13 | 10 | 15 | 5 | 65 | |
| 10 | 7 1 | 18 | 9 | 2 | 2 | 7 | 4_ | 20 | 3 | 65 | |
| fotals | 34 10 | 169 | 102 | 31 | 36 | 145 | 59 | 123 | 69 | 734 | |

^{*}Participated in rating two classes

TABLE 2 (con[†]t.)

Distribution of Category Statements, by Instructors

| | Area 3 | | | | | | | | | | |
|-----------------------|-------------|------------------------|-------------------------------------|----|--|----|--|--------|--|--|--|
| Officer Instructor | | nality acter- es | Interest and motivation in ONI work | | Inter- personal relation- ships | | Sub-total for person- ality factors | Totals | | | |
| | + | | + | | + | | | | | | |
| 1 | 6 | 8 | 1 | 1 | 7 | 5 | 28 | 92 | | | |
| 2 | 10 | 6 | 1 | 3 | 1 | 1 | 22 | 65 | | | |
| 3 * | 15 | 3 | 1 | | 5 | 1 | 25 | 76 | | | |
| | 10 | 9 | 2 | 2 | 14 | 7 | 44 | 78 | | | |
| 4 | 15 | 3 | 5 | 5 | 15 | 1 | 44 | 131 | | | |
| 5 | 9 | 1 | 3 | 5 | 8 | 1 | 27 | 109 | | | |
| 6 * | 49 | 14 | 1 | 4 | 20 | 6 | 94 | 157 | | | |
| | 38 | 16 | 6 | 7 | 15 | 7 | 89 | 146 | | | |
| 7* | 22 | 14 | lu | 4 | 1 | 2 | 54 | 115 | | | |
| - | 30 | 8 | 4 | 6 | 5 | 9 | 62 | 99 | | | |
| 8 | 26 · | 18 | | | 3 | 1 | 48 | 107 | | | |
| 9 | 19 | 14 | 2 | 1 | 9 | 3 | 48 | 115 | | | |
| 10 | 50 | 14 | 3 | | 15 | 2 | 84 | 157 | | | |
| Totals | 299 | 128 | 40 | 38 | 118 | 46 | 669 | 1447 | | | |

^{*}Participated in rating two classes

Intelligence. This finding suggests that the Instructors need to be provided with more precise information concerning the billets for which they are training officers. It also indicates that it would be meaningless to use their ratings of the men to evaluate the results obtained in the medical-psychological assessment program, since any agreement—or lack of it—would be impossible of interpretation for implications relative to success in the Naval Intelligence School, or successful performance on ONI billets.

This finding leads to the consideration of the second criterion for evaluation of the medical-psychological data which was mentioned in the introduction, namely, the relative degree of success of the Officer on the billet to which he was assigned. The evaluation of the men on their billet assignments would permit an evaluation of personality factors measured during the assessment program. This would have a two-fold advantage. First of all it would provide the Navy Intelligence School with more specific criteria relative to the kind of demands which their students would meet in later billet assignments. Secondly, it would provide a criterion for evaluation of the medical-psychological data gathered by Navy Neuropsychiatry. Moreover the kind of data which would be gathered, would extend the information which is normally gathered on job evaluation studies performed by BU PERS, in that this criterion would attempt to get at the personality characteristics, loyalties, etc., which are so important to the Naval Intelligence billet. This description would, of course, be made in terms of medical-psychological demands of the job, rather than in terms of the skill demands which normally form the basis of job evaluations.

RECOMMENDATIONS

- (1) It is recommended that the evaluation of men who have been through the medical-psychological program conducted at the Naval Intelligence School by the Neuropsychiatry Branch, Bureau of Medicine and Surgery, be followed up by assessing, from a psychiatric point of view, the success of the Officer on their billet assignments in ONI. This assessment would be made in terms of the personality demands, stresses, loyalties, values, group performances, etc. of the Officer on the billet.
- (2) It is recommended that once this performance data has been obtained that it be translated into criteria of educational objectives in order to aid the Instructors in evaluating the candidates attending the Naval Intelligence School, and also to aid the Neuropsychiatry Assessment team in evaluating the men from the point of view of psychiatric performance.

Respectfully submitted,

John H. Rohrer Task Director